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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,328	03/29/2001	Yusuke Tsutsui		8119

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EXAMINER

LE, DINH THANH

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,328

Applicant(s)

TSUTSUI ET AL.

Examiner

DINH T. LE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

FINAL REJECTION

Response to Applicant's Amendment

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the recitation "a control circuit generating a boosted voltage" in claims 6, 8 and 10 lacks antecedent basis in the specification.

Claim Rejections

Claim Rejections - 35 USC § 112

Claim 6-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as embodiment or can be determined on the drawings and how they can be interconnected to the driving circuit.

In claim 6, the recitation "power supply clock . . . to be provided to the first switch and the second switch" is misdescriptive because it is inconsistent with what is recited on lines 11-12 that recites that the control circuit generates a boosted voltage to control the first and second switches. It is unclear how the recitation "'control circuit generating a boosted voltage" is read on the preferred embodiment. Insofar as understood, no such limitation is seen on the drawings. This description is misdescriptive because Figure 4A of the present invention shows that the

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boosted voltage is VDD2 not the clock 1. This limitation is considered as a new matter because it is not supported in the specification.

In claim 7, the recitation “said circuit” on line 3 lacks clear antecedent basis. The same is true for claims 9-10.

In claim 12, the recitation “at least two charge pump type power supply circuits” is confusing because this unclear if this is additional “supply circuits” or a further recitation “supply circuit” in claim 10. The same is true for reciting “input voltage” in claim 13.

In claim 14, it is unclear how the two boosted voltages” and “two power supply clocks” can be generated, what the “panel” and “driving circuit” are, where they comes from and how they are relevant to the components recited in the claim 6 since they are not connected to anything.

The remaining claims are dependent from the above rejected claims and therefore also considered indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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Claims 6 and 13-14 are rejected under 35 USC 103 (b) as being unpatentable over Ito (US 5,859,632).

As the best construed, Ito discloses in Figures 1-5, 8 and 14-17 a circuit comprising LCD (35) and a charge pump circuit having a first switch (SW11, SW14), a second switch (SW12, SW15), a first capacitor (55), a second capacitor (66), and a power supply clock circuit (78, 72, 74, 76) for generating the control signal (CK1, CK2) responsive to the clock signal but does not disclose that the clock signal is generated from a system clock provided from outside of the charge pump. For example, lines 15-24 at page 18 of Ito discloses that the signal (CLOCK SIGNAL) is generated from outside of the charge pump. As well known in the art, the CPU (42) and the digital components in Figure 17 of Ito must be operated with an inherent system clock. It would have been obvious to a person having skill in the art at the time the invention was made to employ the clock signal from the inherent clock system of Ito to drive the power supply clock for the purpose of saving components so that the circuit size would be reduced.

Claims 7-12 are rejected under 35 USC 103 (b) as being unpatentable over Ito (US 5,859,632) in view of Jung (US 5,847,702).

As the best construed, Ito discloses in Figures 1-5, 8 and 14-17 a circuit comprising all of the limitation of the claimed invention as discussed above but does not disclose the means for providing a power save instruction. Jung teaches in Figures 1-4 and 7B a circuit comprising a controller (30) for providing a power down instruction to the charge pump circuit (40) for reducing power consumption. It would have been obvious to a person having skill in the art at

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the time the invention was made to modified the circuit Ito by employing the power saving mode taught by Jung for the purpose saving power consumption.

Response to Applicant's Arguments

The applicant argues that the control circuit is a portion of the charge pump type power supply circuit which controls the supply of the power clock to the charge pump circuit. The argument is not persuasive because the control circuit for controlling the switches is not disclosed in the present invention. Figure 4A-4B of the present invention shows that the switches (SW1-SW4) are controlled by the power supply clock 1 or clock 2. No control circuit for generating a boosted voltage to control theses switches is seen.

The applicant argues that Ito does not show the boosted voltage. The argument is not persuasive because it is based on the limitation unclearly recited in the claims that is not given patentable weight as discussed above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dinh Le whose telephone number is (703) 305-3790. The examiner can normally be reached on Monday to Friday from 7:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached on (703) 308-4876. The fax phone number for this Group is (703) 308-7725.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

March 3, 2004

DINH LE
Primary Examiner

A handwritten signature in black ink, appearing to read 'Dinh Le', is written over the printed name and title.